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EXAMINER

CORDRAY, DENNIS R

ART UNIT	PAPER NUMBER
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1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/813,957		STEPHENS ET AL.	
	Examiner		Art Unit	
	Dennis Cordray		1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicants' amendments, filed 11/20/2006 have overcome the rejection of Claims 9-16 under 35 U.S.C. 103(a). The rejections have been withdrawn.
2. Applicants' arguments with respect to have been fully considered but they are not persuasive. The reasons are as follows:

Applicants argue on pp 5-7 that there is no suggestion in the cited references to combine them with Cook et al. Applicants further argue that, since Cook et al solves the yellowing and odor problem by bleaching, there is no motivation to further research the problem. Applicants also argue that the Casey and Biermann references concern papermaking. Applicants also argue that the Sprang teaches addition of dyes as a post treatment after a structure is formed.

The MPEP 2143.01 states:

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Kahn, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching requirement as a guard against using hindsight in an obviousness analysis). The teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the

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art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

Cook et al teaches all of the features of the rejected claims except addition of a whitening agent, and that the treated fibers are whiter than untreated fibers. The Casey (pp 1833-1835) and Biermann (p 197) references teach that it is well known to add blue dyes to pulp to offset the natural yellowness of the pulp and make the fibers whiter. Casey also teaches that the dyes can be added to the papermaking stock (which contains the pulp) or as a surface treatment (to a formed structure). Sprang et al is not used in the current rejections. Fluff pulp consists of fibers that have been mechanically defibrated into a low density individualized fibrous form known as "fluff". They are still cellulosic fibers, as are other papermaking fibers, and have the same natural yellowness. In addition, crosslinking with citric acid imparts further yellowness. Both bleaching and addition of blue dyes are known to those of ordinary skill in the art to counteract yellowing in and thus whiten cellulosic fibers. From MPEP 2144.06:

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

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Combining the two processes, bleaching or addition of a whitening agent, such as a blue dye, for the same purpose would therefore be obvious to one of ordinary skill in the art.

Motivation for whiter fibers is provided by Casey (a pleasant effect because the average person prefers a blue-white to a yellowish white). There is ample evidence and motivation in the prior art that would suggest to one of ordinary skill in the art that addition of blue dye to cellulosic fibers, whether in pulp or sheet form, would increase their whiteness and make them more preferable to consumers and that such a process could be done with a reasonable expectation of success. Using dyes and crosslinking agents is well known in the papermaking art as is the use of blue dyes to improve the whiteness of papermaking fibers. Since papermaking and fluff pulp both use cellulosic fibers, it would have been obvious to one of ordinary skill in the art that fluff pulp would be similarly whitened and be made more preferable to consumers, and that the treatment of the fluff pulp of Cook et al with a blue dye would have a reasonable expectation of success.

Applicant argues on p 7 that a finding of obviousness is impermissible and refuted by the objective indicia of nonobviousness, *In re Piasecki*, 745 F.2d 1468, 223 USPQ 785 (Fed. Cir. 1984); *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). In the cited cases, evidence of non-obviousness was demonstrated by numerous studies by public and private organizations over a period of time. No such evidence has been submitted regarding the instant invention.

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Applicant argues on p 7 that there is a long felt need for a whiter fluff pulp.

Applicant concludes that, since the cited references of Casey and Biermann are over twenty years old and Cook et al was published in 1996 but does not use a whitening agent, the use of a whitening agent, such as a blue dye, to whiten crosslinked fibers is not known and is nonobvious.

Establishing long-felt need requires objective evidence that an art recognized problem existed in the art for a long period of time without solution (MPEP 716.04). The relevance of long-felt need and the failure of others to the issue of obviousness depends on several factors. First, the need must have been a persistent one that was recognized by those of ordinary skill in the art. In re Gershon, 372 F.2d 535, 539, 152 USPQ 602, 605 (CCPA 1967) ("Since the alleged problem in this case was first recognized by appellants, and others apparently have not yet become aware of its existence, it goes without saying that there could not possibly be any evidence of either a long felt need in the . . . art for a solution to a problem of dubious existence or failure of others skilled in the art who unsuccessfully attempted to solve a problem of which they were not aware.") Applicants have not provided evidence that a long felt need existed for whitening fluff pulp beyond what was patented by Cook et al. The discussion in the instant Specification relates to whitening efforts in papermaking art, which Applicant appears to be arguing is different from whitening fluff pulp. How then can there be a long felt need to whiten fluff pulp if there is no evident concern outside of papermaking? The very fact that no others have apparently been concerned with

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further whitening fluff pulp for at least twenty years, as argued above, indicates that there has not been a long felt need.

Applicant argues on pp 7-8 that a leap of reasoning was made in the rejection by suggesting that, since addition of a blue dye makes paper whiter, a fluff pulp can also be made whiter by the same method. As discussed above, fluff pulp fibers and papermaking fibers are cellulosic fibers and it would have been obvious to one of ordinary skill in the art that the same dyes that whiten papers, or papermaking fibers in pulp form, will also whiten fluff pulp fibers.

Applicant argues on p 8 that another leap of reasoning was made in concluding that dyed and crosslinked fibers known in the art indicate that whitened and crosslinked fibers are also known. Applicant further argues that the ordinary meaning of dye means "color from dyeing" and that white means "free from color". The cited references make it clear that the whitening effect of blue dye is due to it being a complementary color to yellow, which is the coloring the papermaking and fluff pulp industry wishes to eliminate. The blue dye grays the paper and makes it appear whiter (Casey, p 1833, last par; p 1835, last par). Thus, adding a dye that colors the paper in the desired manner makes the paper whiter. This effect is well known in the papermaking and pulp industry and is equally applicable to fluff pulp.

Applicant argues that the von Raven reference teaches away from the instant invention by teaching that adding a blue dye results in a certain loss of whiteness. The von Raven reference has been omitted from the current rejection because the rejection stands without it. However, a comment on the addition of blue dye and its effect on

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whiteness is needed. Koide et al (5656379) discusses the effects of blue dye on whiteness (col 1, lines 14-32). The value of the reflectance at 457 nm is defined as the measure of whiteness. Adding a blue dye enhances the reflectance of the blue component of light in the 430 to 570 nm range, thus enhances the whiteness. Bleaching a paper to remove color development by impure colored substances also enhances the whiteness thereof. Koide et al also teaches that adding a little amount of blue dye helps absorb the yellowness of the paper and suggests an appropriate amount (col 5, lines 5-11). Obviously, adding too much blue dye will make the paper visibly blue as opposed to white. The amount of addition to obtain a whitening effect would have been determinable by one of ordinary skill in the art by routine experimentation. The same argument applies to fluff pulp fibers since they are also cellulosic fibers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-8 and 17-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cook et al (5562740) as evidenced by Farr et al ("Bleaching Agents" Kirk-Othmer Encyclopedia of Chemical Technology, V.4, p 43).

Cook et al discloses crosslinked cellulosic fibers and a process for making the fibers comprising: applying a citric acid crosslinking agent and a crosslinking catalyst to a web of fibers, separating the web into individualized fibers, heating the individualized fibers to provide individualized crosslinked fibers, and bleaching the crosslinked fibers using hydrogen peroxide and sodium hydroxide. (abstract; col 13, lines 22-25). Cook et al discloses that sodium hypophosphite is used as a crosslinking catalyst (col 12, lines 7-12 and 28-30). The fibers are preferably mechanically defibrated into a fibrous form known as "fluff" prior to reaction of the crosslinking agent with the fibers (col 8, lines 42-44), thus are fluff pulp. Cook et al further discloses that the fibers can be used to form absorbent products such as diapers, feminine care products, and tissues (col 17, lines 30-35).

Cook et al teaches that the citric acid crosslinking agent can cause discoloring (i.e., yellowing) of the white cellulosic fibers when treated at elevated temperatures and result in unpleasant odors (col 3, lines 33-40). Cook et al discloses that bleaching improves the product brightness and reduces odor (col 3, lines 41-52).

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A bleaching agent whitens a substrate by chemical reaction (for evidence, see Farr et al, p 43, subtopic "Introduction"), thus bleached pulps are whiter than unbleached pulps. The bleached fluff pulp of Cook et al therefore comprises whitened crosslinked cellulosic fluff pulp fibers.

Claims 1, 6-8 and 17-19 are product-by-process claims. The product of Cook et al appears to be the same as or similar to the claimed product, whitened crosslinked cellulosic fluff pulp fibers, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). "In the event any differences can be shown for the product of the product-by-process claims 1, 5 and 12-14 as opposed to the product taught by the reference Cook et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)"

4. Claims 1- 3, 6-10 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Casey (Pulp and Paper Chemistry and Chemical Technology, 3rd ed, vol III, John Wiley & sons, 1981) and Biermann (Essentials of Pulping and Papermaking, Academic Press, Inc., 1993), and further in view of Westland et al (6300259).

The disclosure of Cook et al is as above.

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Cook does not disclose the use of a whitening agent comprising one or more dyes. Cook et al also does not disclose that the treated fluff pulp is whiter than untreated fluff pulp.

Casey et al teaches that paper can be whitened by adding a blue dye because the dye is complementary to the natural yellow tint of pulp (p 1833, last par bridging to p 1834). Although the addition of a dye reduces total reflectance, Casey teaches that yellowness is about four times as important to the visual perception of whiteness than total reflectance (p 1835, 2nd full par), thus a reduction of yellowness and an increase in whiteness is achieved by adding a blue dye. The blue dye can be added as a surface treatment or to the stock (par spanning pp 1834-1835). Casey also teaches that a small amount of blue dye or blue pigment is often added to the stock (which comprises the pulp fibers) and results in a pleasant effect because the average person prefers a blue-white to a yellowish white (p 1835, next to last par), motivation is provided to whiten the fibers using a blue dye. Thus the use of a whitening agent to whiten pulp is well known to those of ordinary skill in the art.

Biermann teaches that blue dye is often added to pulp to offset the tendency for pulp to be yellow (p 197, left col, 2nd par), thus the use of a whitening agent to whiten pulp is well known to those of ordinary skill in the art.

Westland et al discloses a method of forming a crosslinkable cellulosic fibrous product comprising applying a crosslinking agent to a mat of cellulosic fibers, drying the mat so that no crosslinking occurs, separating the mat into individualized treated fibers, incorporating the individualized fibers into a fibrous web and heating the web to affect

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crosslinking (col 5, line 34 to col 6, line 6). Pretreatment or post treatment of the fibers with a dye is also disclosed (col 3, lines 8-12). Cellulosic fibers treated with a dye and a crosslinking agent, separated into individualized form and subsequently heated to provide crosslinking are thus known to one of ordinary skill from prior art.

The art of Cook et al, Casey, Biermann, Westland et al and the instant invention are analogous in that they are from the art of dyeing and bleaching cellulosic fibers. It would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue dye to the fibers to increase whiteness of the fibrous product in the process of Cook et al in view of Casey and Biermann and further in view of Westland et al to make the product more preferable to customers. Whether the fibers are fluff pulp (mechanically defibrated into a low density individualized fibrous form known as "fluff" as taught by Cook et al) or papermaking fibers, they are cellulosic fibers, and it would have been obvious to one of ordinary skill in the art to obtain increased whiteness of the fibers, and therefore of crosslinked fluff pulp, over untreated fibers or fluff pulp.

Both bleaching and addition of blue dyes are known to those of ordinary skill in the art to counteract yellowing in and thus whiten cellulosic fibers. From MPEP 2144.06:

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining

them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Combining the two processes, bleaching or addition of a whitening agent, such as a blue dye, for the same purpose would therefore have been obvious to one of ordinary skill in the art.

5. Claims 4-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Casey, Biermann, and Westland et al as applied to claims 1-3 and 9-11 above, and further in view of Chudgar ("Dyes, Azo" Kirk-Othmer Encyclopedia of Chemical Technology) and von der Eltz et al (5512064).

Cook et al, Casey, Biermann, Westland et al and von Raven do not disclose the use of an azo metal complex dye as a blue dye.

Chudgar teaches that azo dyes are the largest class of organic dyes and are widely used in the textile and paper industries (Introduction), thus are well known in the art. Von der Eltz et al teaches that azo dyes and azo metal complex dyes are well known art and are completely familiar to one skilled in the art (col 5, lines 10-19).

The art of Cook et al, Casey, Biermann, Westland et al, Chudgar, Von der Eltz et al and the instant invention are analogous and pertaining to dyes used for cellulosic fibers. In the absence of limiting parameters not revealed in the current disclosure it would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue azo metal complex dye as a functionally equivalent option to the formed web to increase whiteness of the fibrous product in the process of Cook et al

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in view of Casey, Biermann and Westland et al and further in view of Chudgar and von der Eltz et al to make the product more preferable to customers.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-19 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 10/815159 in view of Cook et al and Farr et al ("Bleaching Agents" Kirk-Othmer Encyclopedia of Chemical Technology, John Wiley & Sons, 2003).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced claims of the instant invention are fully encompassed by the claims of the copending application.

Claim 1 of the copending application is a product by process claim and thus emphasizes the product, whitened crosslinked cellulosic fluff pulp fibers, which become the fibers claimed in the instant invention with the application of a bleaching agent. The language of Claim 1 of the copending application (i.e.-comprising) does not preclude the

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use of a bleaching agent. Cook et al teaches bleaching crosslinked fluff pulp to remove the yellowness caused by the crosslinking process and the bleaching agents used. Farr et al teaches that bleaching lightens or whitens a substrate through chemical reaction and that paper and pulp bleaching is a known process. It would have been obvious to one with ordinary skill in the art to modify Claim 1 of the copending application to include bleaching the claimed fibers of 10/815159 to improve the whiteness of the product as per the teachings of Cook et al and Farr et al.

Claims 3-6 of the instant invention read the same as claims 2-5 of the copending application after appropriate changes in the referenced claim numbers.

The language of Claim 6 of the copending application does not preclude the use of a bleaching agent as specified in Claim 9 of the instant invention and, other than the additional step in Claim 9 of applying a bleaching agent, the claims read identically. Neogi et al discloses that bleaching is a common method for increasing whiteness and that a whiter product is preferable to customers. It would have been obvious to one with ordinary skill in the art to modify Claim 6 of the copending application to include a bleaching step after crosslinking as per the teachings of Cook et al and Farr et al.

Claims 10-14 of the instant application read the same as Claims 7-11 of the copending application after appropriate changes in the referenced claim numbers.

Claims 17-19 of the instant application read the same as Claims 12-14 of the copending application after appropriate changes in the referenced claim numbers.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-3 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 6 and 7 of U. S. Patent No. 6893473 in view of Cook et al and Farr et al.

The instant Claims are directed to a product, whitened crosslinked cellulosic fluff pulp fibers treated with a whitening agent and a bleaching agent (Claim 1). The whitening agent is a blue dye (Claim 3). The fibers are citric acid crosslinked fibers (Claim 5).

The claims of U. S. Patent No. 6893473 are directed to a product, whitened fluff pulp comprising pulp fibers and a whitening agent (Claim 1). The fibers can be citric acid crosslinked fluff pulp (Claims 6-7). The whitening material is a blue dye (Claim 3).

The language of Claim 1 of the patent (i.e.-comprising) does not preclude the use of a bleaching agent. For the reasons given in the prior obviousness-type double patenting rejection, it would have been obvious to one with ordinary skill in the art to further treat the fibers claimed in U.S. Patent No. 6893473 by bleaching the fibers to improve the whiteness of the product as per the teachings of Cook et al and Farr et al.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DRC


SPE, Art Unit 1731